GROUNDWATER MODELING UPDATE

Week of June 21, 2012

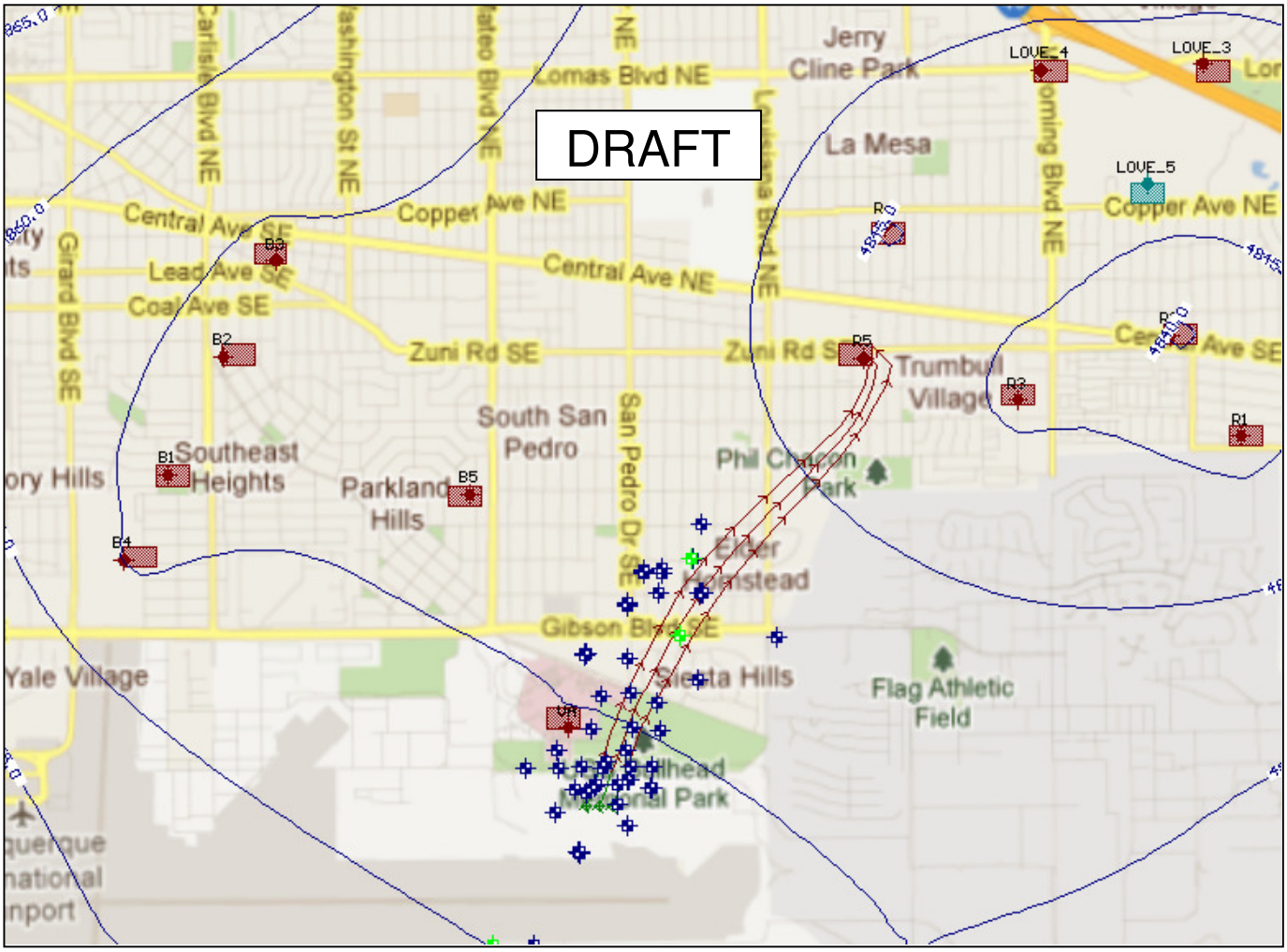
Current Activities

- Currently developing and revising inputs to model boundary conditions, pumping wells, flow calibration data, and hydraulic conductivity. This is an improvement to the earlier preliminary model which operated from more limited data.
- Information provided by the Albuquerque Bernalillo County Water Utility Authority has been included in the model. This includes 2012 pumping rates and the activity (on/off) for each ABCWUA well. I have not included information from Kirtland AFB yet.
- Because the regional aquifer boundaries are far from the EDB plume, I decided to try developing two models. The first model, with a domain large enough to include regional aquifer boundaries, provides boundary input for the second model. The second model is much smaller and covers the EDB plume and surrounding vicinity (attached maps). So far, this seems to provide good calibration between observed and calculated heads.
- The following pages have some early output on flow directions and pathlines. There is still a lot do, but it's an indication.

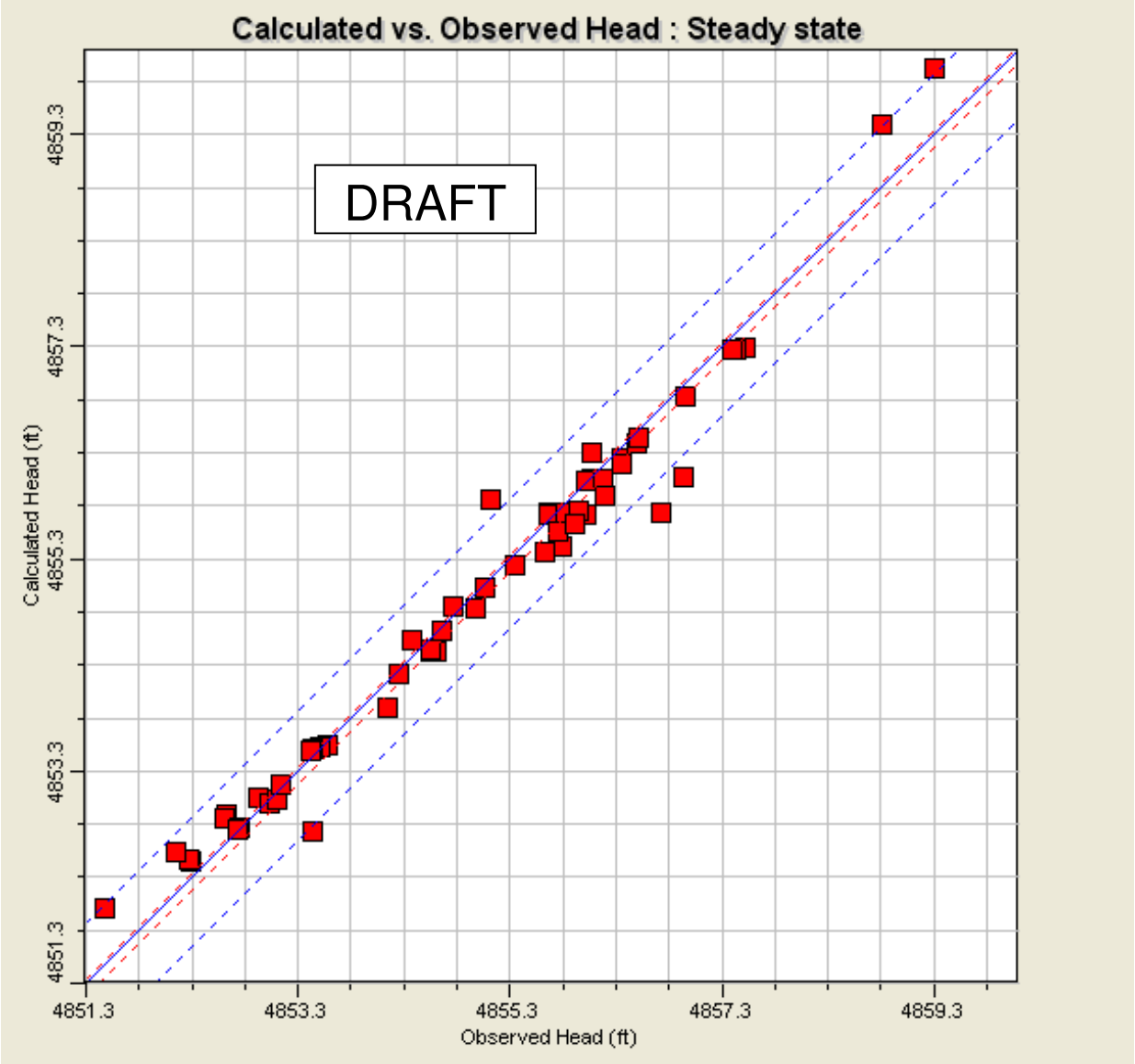
Upcoming Activities

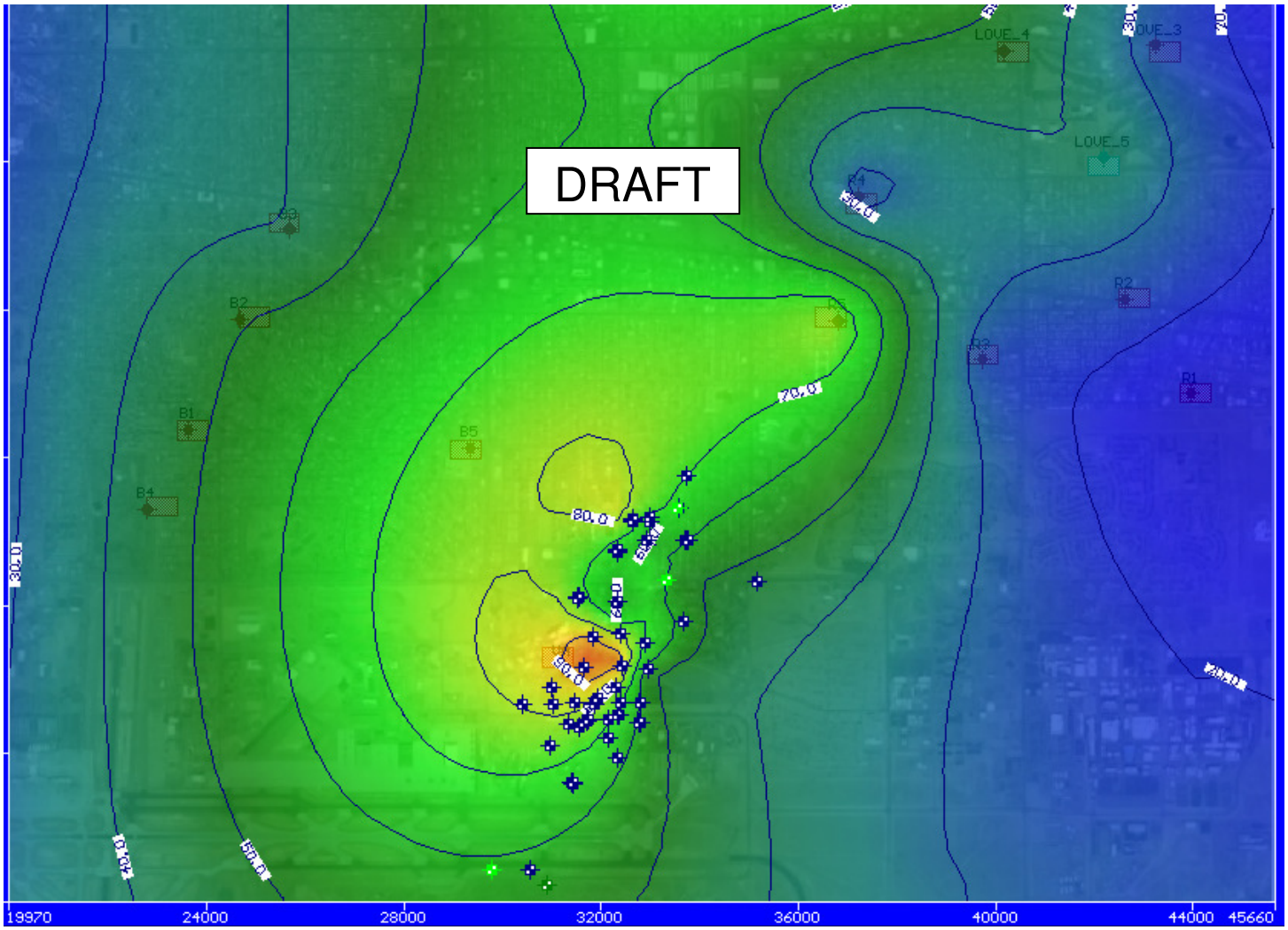
- Continue to develop and revise model(s). Perform flow model iterations.
- Revise and update all aspects as data becomes available, include Kirtland well data (EPA has requested data).
- Model boundaries still need refinement. Model layers still need to be addressed.

Overall Current Project Status: Computer model being developed. Ongoing data review.



Pathline time markers set at 5 year intervals.


Calculated vs. Observed Head : Steady state
DRAFT
Calculated Head (ft)
4859.3
4857.3
4855.3
4853.3
4851.3
4851.3
4853.3
4855.3
4857.3
4859.3
Observed Head (ft)



Horizontal hydraulic conductivity distribution based on current data in model.